EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	("20060005180").PN.	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2007/07/19 14:57
L2	45	(distance length) near7 execution near7 phase	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/19 15:02
L4	4	distance near7 phase near3 threshold same (execut\$4 adj phase)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/19 15:05
L6	6	(distance length) near7 histogram near8 ((execution adj phase) (hot adj trace) (trace) (execution adj trace))	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/19 15:06
L8	64	(detect\$4 determin\$4 identif\$4 discover\$4) near7 (program) near4 phase same (distance length)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/19 15:14
L10	2	(detect\$4 determin\$4 identif\$4 discover\$4) near7 (execut\$4 near5 trace) same (compar\$4 with distance)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/19 15:16
L11	. 1	(detect\$4 determin\$4 identif\$4 discover\$4) near7 (execut\$4 near5 trace) same histogram	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/19 15:17
L12	1	histogram near8 (execut\$4 near3 trace)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/19 15:17

EAST Search History

L13	10	histogram same (execut\$4 near3 trace)	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/19 15:18
L15	7	histogram same (distance length) same optimiz\$4 and compil\$4	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/19 15:19
L16	90	hot adj buffer	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/19 15:20
L17	2	hot adj buffer and trace and histogram	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/19 15:20
L18	17	hot adj buffer and trace	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/19 15:21
L19	70	hot adj trace	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/19 15:21
L20	5	hot adj trace and histogram	US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/07/19 15:21



Subscribe (Full Service) Register (Limited Service, Free) Login

Search: • The ACM Digital Library • The Guide

task* and matrix and workflow

Lemen.

THE ACM DIGITAL LIBRARY

Feedback Report a problem Satisfaction survey

Terms used: task and matrix and workflow

expanded form

Found 16.984 of 206.720

Sort results

Best 200 shown

by Display

results

relevance

Save results to a Binder Search Tips -Open results in a new

Try an Advanced Search Try this search in The ACM Guide

window

Results 1 - 20 of 200

Result page: 1 2 3 4 5 6 7 8 9 10

next Relevance scale

Merging application-centric and data-centric approaches to support transaction-

oriented multi-system workflows

Y. Breitbart, A. Deacon, H.-J. Schek, A. Sheth, G. Weikum September 1993 ACM SIGMOD Record, Volume 22 Issue 3

Publisher: ACM Press

Full text available: pdf(683.44 KB) Additional Information: full citation, abstract, citings, index terms

Workflow management is primarily concerned with dependencies between the tasks of a workflow, to ensure correct control flow and data flow. Transaction management, on the other hand, is concerned with preserving data dependencies by preventing execution of conflicting operations from multiple, concurrently executing tasks or transactions. In this paper we argue that many applications will be served better if the properties of transaction and workflow models are supported by an integrated ar ...

2 A situated computing framework for mobile and ubiquitous multimedia access using



small screen and composite devices

Thai-Lai Pham, Georg Schneider, Stuart Goose

October 2000 Proceedings of the eighth ACM international conference on Multimedia **MULTIMEDIA '00**

Publisher: ACM Press

Full text available: pdf(952.99 KB)

Additional Information: full citation, abstract, references, citings, index

In recent years, small screen devices, such as cellular phones or Personal Digital Assistants (PDAs), enjoy phenomenal popularity. PDAs can be used to complement traditional computing systems to access personal multimedia information beyond the usage as digital organizers. However, due to the physical limitations accessing rich multimedia contents and diverse services using a single PDA is more difficult. Hence, the Situated Computing Framework (SCF) research project at Siemens Corporate Rese ...

Keywords: WWW, composite devices, mobile and ubiquitous computing, situated computing

Using dependency models to manage complex software architecture

Neeraj Sangal, Ev Jordan, Vineet Sinha, Daniel Jackson

October 2005 ACM SIGPLAN Notices, Proceedings of the 20th annual ACM SIGPLAN conference on Object oriented programming, systems, languages, and applications OOPSLA '05, Volume 40 Issue 10

Publisher: ACM Press

Full text available: pdf(645.78 KB)

Additional Information: full citation, abstract, references, citings, index terms

An approach to managing the architecture of large software systems is presented. Dependencies are extracted from the code by a conventional static analysis, and shown in a tabular form known as the 'Dependency Structure Matrix' (DSM). A variety of algorithms are available to help organize the matrix in a form that reflects the architecture and highlights patterns and problematic dependencies. A hierarchical structure obtained in part by such algorithms, and in part by input from the user, then b ...

Keywords: DSM, architecture, dependency, matrix, model

4 WIDE workflow development methodology

L. Baresi, F. Casati, S. Castano, M. G. Fugini, I. Mirbel, B. Pernici

March 1999 ACM SIGSOFT Software Engineering Notes, Proceedings of the international joint conference on Work activities coordination and collaboration WACC '99, Volume 24 Issue 2

Publisher: ACM Press

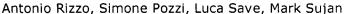
Full text available: pdf(1.34 MB)

Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>, <u>citings</u>, <u>index</u> terms

The development of workflows (WFs) for complex organizations to be interfaced with existing information systems requires a specific methodological approach to guarantee benefits and effectiveness of the final results. In fact, the WF should be well integrated in the organization both from the technical and the organizational point of view. While the characteristics of the Workflow Management System (WFMS) platform adopted in the implementation are relevant to establish the boundary between the w ...

Keywords: exceptions, patterns, triggers, workflow design

On theories, methods and techniques: Designing complex socio-technical systems: a heuristic schema based on cultural-historical psychology



September 2005 Proceedings of the 2005 annual conference on European association of cognitive ergonomics EACE '05

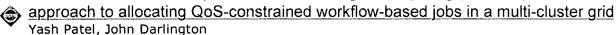
Publisher: University of Athens

Full text available: pdf(429.54 KB) Additional Information: full citation, abstract, references

This paper presents a practical description of an analysis and design methodology for complex socio-technical systems. The basis of the approach is a re-elaboration of the unit of analysis originally proposed by Vygotsky. The method focuses on man-artefact interactions in order to inform the design of new artefacts and patterns of interactions. Depending on the required level of design intervention and on the level of structure of the domain the focus is directed either towards the analysis and ...

Keywords: Unit of analysis, activity theory, cultural-historical psychology, interaction design, socio-technical systems

6 4th international workshop on middleware for grid computing (MGC'06): A novel



November 2006 Proceedings of the 4th international workshop on Middleware for grid computing MCG '06

Publisher: ACM Press

Full text available: 📆 pdf(164.01 KB) Additional Information: full citation, abstract, references, index terms

Clusters are increasingly interconnected to form multi-cluster systems, which are becoming popular for scientific computation. Grid users often submit their applications in the form of workflows with certain Quality of Service (QoS) requirements imposed on the workflows. These workflows detail the composition of Grid services and the level of service required from the Grid. This paper addresses workload allocation techniques for





Grid workflows. We model a resource within a cluster as a G/G/

Workflow management systems for financial services

Thomas Schael, Buni Zeller

December 1993 Proceedings of the conference on Organizational computing systems COCS '93

Publisher: ACM Press

Full text available: pdf(1.46 MB) Additional Information: full citation, references, citings, index terms

Keywords: business process automation, computer supported cooperative work, customer satisfaction, groupware, office automation, office procedure, process reengineering, workflow management technology, workgroup computing

8 Proceedings of a conference on Application Development Systems, Santa Clara,

California, March 10-11, 1980: ...On developing a 'NATURAL' installation

January 1980 ACM SIGMIS Database, Volume 11 Issue 3

Publisher: ACM Press

Full text available: pdf(324.50 KB) Additional Information: full citation

9 <u>Dynamic Access Control Prediction for Ordered Service Sequence in Grid</u>

<u>Environment</u>

Chengwei Wang

December 2006 Proceedings of the 2006 IEEE/WIC/ACM International Conference on Web Intelligence WI '06

Publisher: IEEE Computer Society

Full text available: pdf(343.82 KB) Additional Information: full citation, abstract

When facing the emerging circumstance that the Internet and business globalization have replaced the separation that was typical of the traditional business paradigm, especially the workflow and grid environment, challenges have been made to the traditional static access control model. To solve these challenges, we present a Dynamic Access Control Prediction mechanism for service workflow base on Markov chain. We abstract the service workflow in workflow and/or grid to an Ordered Service Sequenc ...

10 <u>Towards a Requirements-Driven Workbench for Supporting Software Certification</u> and Accreditation

Seok-Won Lee, Robin A. Gandhi, Siddharth Wagle

May 2007 Proceedings of the Third International Workshop on Software Engineering for Secure Systems SESS '07

Publisher: IEEE Computer Society

Full text available: pdf(890.10 KB) Additional Information: full citation, abstract

Security certification activities for software systems rely heavily on requirements mandated by regulatory documents and their compliance evidences to support accreditation decisions. Therefore, the design of a workbench to support these activities should be grounded in a thorough understanding of the characteristics of certification requirements and their relationships with certification activities. To this end, we utilize our findings from the case study of a certification process of The Unite ...

11 Measurement and analysis of sequential design processes

E. W. Johnson, J. B. Brockman

January 1998 ACM Transactions on Design Automation of Electronic Systems

(TODAES), Volume 3 Issue 1

Publisher: ACM Press

Additional Information: full citation, abstract, references, citings, index

Full text available: pdf(161.71 KB)

terms

As design processes continue to increase in complexity it is important to base process-improvement decisions on quantitative analysis. We describe the development of an analytical approach for evaluating sequential design-process completion time and for determining the sensitivities of design time with respect to individual task durations and transition probabilities. Techniques are also detailed for collecting process metadata and calibrating a design process model. Example applications i ...

Keywords: management science, sensitivity analysis, workflow

12 A reengineering framework for evaluating a financial imaging system

Henry C. Lucas, Donald J. Berndt, Greg Truman

May 1996 Communications of the ACM, Volume 39 Issue 5

Publisher: ACM Press

Full text available: 🔀 pdf(261.73 KB) Additional Information: full citation, references, citings, index terms

13 Traffic-based Load Balance for Scalable Network Emulation

Xin Liu, Andrew A. Chien

November 2003 Proceedings of the 2003 ACM/IEEE conference on Supercomputing SC '03

Publisher: IEEE Computer Society

Full text available: pdf(191.58 KB) Additional Information: full citation, abstract, citings

Load balance is critical to achieving scalability for large network emulation studies, which are of compelling interest for emerging Grid, Peer to Peer, and other distributed applications and middleware. Achieving load balance in emulation is difficult because of irregular network structure and unpredictable network traffic. We formulate load balance as a graph partitioning problem and apply classical graph partitioning algorithms to it. The primary challenge in this approach is how to extract u ...

14 <u>Distributed systems and grid computing (DSGC): Dynamic scheduling of scientific</u>

workflow applications on the grid: a case study

Radu Prodan, Thomas Fahringer

March 2005 Proceedings of the 2005 ACM symposium on Applied computing SAC '05

Publisher: ACM Press

Full text available: pdf(865.39 KB)

Additional Information: full citation, abstract, references, citings, index terms

The existing Grid workflow scheduling projects do not handle recursive loops which are characteristic to many scientific problems. We propose a hybrid approach for scheduling Directed Graph (DG)-based workflows in a Grid environment with dynamically changing computational and network resources. Our dynamic scheduling algorithm is based on the iterative invocation of classical static Directed Acyclic Graphs (DAGs) scheduling heuristics generated using well-defined cycle elimination and task migra ...

Keywords: genetic algorithms, grid computing, optimisation, performance steering, scheduling, scientific workflows

15 Technical papers: Evaluation of a workflow scheduler using integrated performance

modelling and batch queue wait time prediction

Daniel Nurmi, Anirban Mandal, John Brevik, Chuck Koelbel, Rich Wolski, Ken Kennedy

November 2006 Proceedings of the 2006 ACM/IEEE conference on Supercomputing SC

Publisher: ACM Press

Full text available: pdf(313.07 KB) Additional Information: full citation, abstract, references, index terms

html(2.21 KB)

Large-scale distributed systems offer computational power at unprecedented levels. In the past, HPC users typically had access to relatively few individual supercomputers and, in general, would assign a one-to-one mapping of applications to machines. Modern HPC users have simultaneous access to a large number of individual machines and are beginning to make use of all of them for single-application execution cycles. One method that application developers have devised in order to take advantage o ...

16 Application of a Markov model to the measurement, simulation, and diagnosis of an



iterative design process

Eric W. Johnson, Luis A. Castillo, Jay B. Brockman

June 1996 Proceedings of the 33rd annual conference on Design automation DAC '96

Publisher: ACM Press

Full text available: pdf(46.66 KB) Additional Information: full citation, references, citings, index terms

17 Access control analysis: A model-checking approach to analysing organisational



controls in a loan origination process

Andreas Schaad, Volkmar Lotz, Karsten Sohr

June 2006 Proceedings of the eleventh ACM symposium on Access control models and technologies SACMAT '06

Publisher: ACM Press

Full text available: pdf(383.35 KB) Additional Information: full citation, abstract, references, index terms

Demonstrating the safety of a system (ie. avoiding the undesired propagation of access rights or indirect access through some other granted resource) is one of the goals of access control research, e.g. [1-4]. However, the flexibility required from enterprise resource management (ERP) systems may require the implementation of seemingly contradictory requirements (e.g. tight access control but at the same time support for discretionary delegation of workflow tasks and rights). To aid in the analys ...

Keywords: delegation, model-checking, organisational control, revocation, separation

18 Lineage retrieval for scientific data processing: a survey



Rajendra Bose, James Frew

March 2005 ACM Computing Surveys (CSUR), Volume 37 Issue 1

Publisher: ACM Press

Full text available: pdf(728.75 KB)

Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>, <u>citings</u>, <u>index</u>

Scientific research relies as much on the dissemination and exchange of data sets as on the publication of conclusions. Accurately tracking the lineage (origin and subsequent processing history) of scientific data sets is thus imperative for the complete documentation of scientific work. Researchers are effectively prevented from determining, preserving, or providing the lineage of the computational data products they use and create, however, because of the lack of a definitive model for lineage ...

Keywords: Data lineage, audit, data provenance, scientific data, scientific workflow

19 Research sessions: potpourri: Workflow management with service quality guarantees

Michael Gillmann, Gerhard Weikum, Wolfgang Wonner June 2002 Proceedings of the 2003 ACM SIGMOD in

June 2002 Proceedings of the 2002 ACM SIGMOD international conference on Management of data SIGMOD '02

Publisher: ACM Press

Full text available: pdf(1.29 MB)

Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>, <u>citings</u>, <u>index</u>

terms

Workflow management systems (WFMS) that are geared for the orchestration of business processes across multiple organizations are complex distributed systems: they consist of multiple workflow engines, application servers, and communication middleware servers such as ORBs, where each of these server types can be replicated on multiple computers for scalability and availability. Finding an appropriate system configuration with guaranteed application-specific quality of service in terms of throughpu ...

20 Access control in collaborative systems



William Tolone, Gail-Joon Ahn, Tanusree Pai, Seng-Phil Hong March 2005 ACM Computing Surveys (CSUR), Volume 37 Issue 1

Publisher: ACM Press

Full text available: pdf(247.34 KB)

Additional Information: full citation, abstract, references, citings, index terms

Balancing the competing goals of collaboration and security is a difficult, multidimensional problem. Collaborative systems often focus on building useful connections among people, tools, and information while security seeks to ensure the availability, confidentiality, and integrity of these same elements. In this article, we focus on one important dimension of this problem---access control. The article examines existing access control models as applied to collaboration, highlighting not only th ...

Keywords: Access control, collaboration, security models

Results 1 - 20 of 200

Result page: **1** 2 3 <u>4</u> <u>5</u> <u>6</u> <u>7</u> <u>8</u> <u>9</u> <u>10</u>

The ACM Portal is published by the Association for Computing Machinery. Copyright © 2007 ACM, Inc. Terms of Usage Privacy Policy Code of Ethics Contact Us

Useful downloads: Adobe Acrobat QuickTime Windows Media Player



Subscribe (Full Service) Register (Limited Service, Free) Login

Search: • The ACM Digital Library

C The Guide

aggregat* and workflow and matix

THE ACM DICHTAL LIBRARY

Feedback Report a problem Satisfaction survey

Terms used: aggregat and workflow and matix

Found 1,151 of 206,720

Sort results by

Display

results

relevance expanded form Save results to a Binder Search Tips Open results in a new

Try an Advanced Search Try this search in The ACM Guide

Results 1 - 20 of 200

Result page: $1 \quad 2 \quad 3 \quad 4$

window

5

6 7 10 next

Relevance scale

Best 200 shown

Transportation systems: Automatic composition of aggregation workflows for transportation modeling



José Luis Ambite, Matthew Weathers

May 2005 Proceedings of the 2005 national conference on Digital government research dg.o2005

Publisher: Digital Government Research Center

Full text available: pdf(268.54 KB)

Additional Information: full citation, abstract, references, citings, index terms

Many scientific problems can be modeled as computational workflows that integrate data from heterogeneous sources and process such data to derive new results. These data analysis problems are pervasive in the physical and social sciences, as well as in government practice. In this paper, we present an approach to automatically create computational workflows in response to user data requests. We represent both data access and data processing operations uniformly as web services. We describe the i ...

Keywords: RDF, information integration, triple logic, web service composition, workflow

2 The specification and enforcement of authorization constraints in workflow



management systems

Elisa Bertino, Elena Ferrari, Vijay Atluri

February 1999 ACM Transactions on Information and System Security (TISSEC), Volume 2 Issue 1

Publisher: ACM Press

Full text available: R pdf(374.02 KB)

Additional Information: full citation, abstract, references, citings, index

In recent years, workflow management systems (WFMSs) have gained popularity in both research and commercial sectors. WFMSs are used to coordinate and streamline business processes. Very large WFMSs are often used in organizations with users in the range of several thousands and process instances in the range of tens and thousands. To simplify the complexity of security administration, it is common practice in many businesses to allocate a role for each activity in the process and then assig ...

Keywords: access control, authorization constraints, role and user planning

3 A flexible model supporting the specification and enforcement of role-based

authorization in workflow management systems Elisa Bertino, Elena Ferrari, Vijayalakshmi Atluri

November 1997 Proceedings of the second ACM workshop on Role-based access

control RBAC '97

Publisher: ACM Press

Full text available: pdf(1.37 MB) Additional Information: full citation, references, citings, index terms

Management and utilization of knowledge for the automatic improvement of workflow

performance

Trent Jaeger, Atul Prakash

August 1995 Proceedings of conference on Organizational computing systems COCS

Publisher: ACM Press

Full text available: pdf(1.14 MB)

Additional Information: full citation, abstract, references, citings, index

We present a framework that enables reengineers to build a base of performance improvement knowledge that can be used to automatically improve workflow performance. Automatic improvement of workflow performance involves modification of a business information system such that the predicted performance of its business workflows satisfies a performance goal. The number of possible modification options is very large, so a significant body of knowledge is needed to choose among them. We demonstr ...

5 Providing transactional properties for migrating workflows

October 2004 Mobile Networks and Applications, Volume 9 Issue 5

Publisher: Kluwer Academic Publishers

Full text available: pdf(138.89 KB) Additional Information: full citation, abstract, references, index terms

Current workflow management systems have several limitations that need to be addressed by the research community. This paper deals with two of them: the lack of flexibility necessary in a changing business environment, and the lack of transactional quarantees for workflow applications.

To handle the dynamic character of current business environments and processes, we have proposed the Migrating Workflow Model. A migrating workflow transfers its code (specification) and its execution st ...

Keywords: migrating workflows, mobile environment, transactions, workflows

6 CIDP— on workflow-based client integration in complex client oriented design



projects

W. Dangelmaier, H. Hamoudia, R. F. Klahold

April 1999 ACM SIGGROUP Bulletin, Volume 20 Issue 1

Publisher: ACM Press

Additional Information: full citation, abstract, index terms Full text available: pdf(1.06 MB)

Today's attendance companies tend strongly upward to "client orientation" by focusing on adjusting products to special needs and designing internal processes to fit variable customer requirements. For any kind of client-centred projects the degree to which customers take part in the design decision becomes of utmost importance. In this paper we will demonstrate innovative concepts we are validating which support a co-operative design of manifold projects. Our approach is based on the process-cen ...

Keywords: Internet, product development, user interaction, workflow-

7 Correlation and association: Mining compressed commodity workflows from massive



RFID data sets

Hector Gonzalez, Jiawei Han, Xiaolei Li

November 2006 Proceedings of the 15th ACM international conference on Information and knowledge management CIKM '06

Publisher: ACM Press

Full text available: pdf(239.20 KB) Additional Information: full citation, abstract, references, index terms

Radio Frequency Identification (RFID) technology is fast becoming a prevalent tool in tracking commodities in supply chain management applications. The movement of commodities through the supply chain forms a gigantic workflow that can be mined for the discovery of trends, flow correlations and outlier paths, that in turn can be valuable in understanding and optimizing business processes. In this paper, we propose a method to construct **compressed probabilistic workflows** that capture the mo ...

Keywords: RFID, workflow induction

Research sessions: Research 11: OLAP: Composite subset measures

Lei Chen, Raghu Ramakrishnan, Paul Barford, Bee-Chung Chen, Vinod Yegneswaran
September 2006 Proceedings of the 32nd international conference on Very large data
bases VLDB '06

Publisher: VLDB Endowment

Full text available: pdf(457.48 KB) Additional Information: full citation, abstract, references, index terms

Measures are numeric summaries of a collection of data records produced by applying aggregation functions. Summarizing a collection of subsets of a large dataset, by computing a measure for each subset in the (typically, user-specified) collection is a fundamental problem. The multidimensional data model, which treats records as points in a space defined by dimension attributes, offers a natural space of data subsets to be considered as summarization candidates, and traditional SQL and OLAP cons ...

Declarative workflows that support easy modification and dynamic browsing

Richard Hull, Francois Llirbat, Eric Siman, Jianwen Su, Guozhu Dong, Bharat Kumar, Gang
Zhou

March 1999 ACM SIGSOFT Software Engineering Notes, Proceedings of the international joint conference on Work activities coordination and collaboration WACC '99, Volume 24 Issue 2

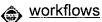
Publisher: ACM Press

Full text available: Description: Additional Information: full citation, abstract, references, citings, index terms

A new programming paradigm named "Vortex" is introduced for specifying a wide range of decision-making activities including, in particular, workflows. In Vortex workflows are specified declaratively. A particular emphasis is on "object-focused" workflows, i.e., workflows focused on how individual input objects should be processed within an organization. Such workflows arise commonly in practice, including insurance claims processing, and many electronic commerce applications, and in the area of ...

Keywords: browsing, choice-based execution, decision-making, declarative semantics, workflow management

10 Workflow applications and models: On the black art of designing computational



Yolanda Gil, Pedro A. González-Calero, Ewa Deelman

June 2007 Proceedings of the 2nd workshop on Workflows in support of large-scale science WORKS '07

Publisher: ACM Press

Full text available: pdf(843.07 KB) Additional Information: full citation, abstract, references, index terms

Computational workflows have recently emerged as an effective paradigm to manage large-scale distributed scientific computations. Workflow systems can automate many execution-level details and provide assistance in composing and validating workflows. However, there is still a significant effort involved in creating these workflows since they

often represent collaborative and exploratory science experiments. Therefore, current practice is effective in producing results but not cost-effective f ...

Keywords: computational workflows, scientific workflows, software design, workflow design, workflow systems

11 Specification and implementation of exceptions in workflow management systems

Fabio Casati, Stefano Ceri, Stefano Paraboschi, Guiseppe Pozzi
September 1999 ACM Transactions on Database Systems (TODS), Volume 24 Issue 3

Publisher: ACM Press

Full text available: pdf(250.40 KB)

Additional Information: full citation, abstract, references, citings, index terms

Although workflow management systems are most applicable when an organization follows standard business processes and routines, any of these processes faces the need for handling exceptions, i.e., asynchronous and anomalous situations that fall outside the normal control flow. In this paper we concentrate upon anomalous situtations that, although unusual, are part of the semantics of workflow applications, and should be specified and monitored coherently; in most real-life applica ...

Keywords: active rules, asynchronous events, exceptions, workflow management systems

12 Process and workflow: Lynx: an open architecture for catalyzing the deployment of



į

interactive digital government workflow-based systems Iván P. Vélez, Bienvenido Vélez

May 2006 Proceedings of the 2006 international conference on Digital government research dg.o '06

Publisher: ACM Press

Additional Information: full citation, abstract, references, cited by, index terms

We introduce Lynx, a new email extension for workflow systems based on Web Services. Web service based workflows provide support for aggregating web services into new higher-level web services by means of process composition. This approach does not usually support direct interaction with people. On the other hand, traditional collaboration tools like email or instant messaging do not provide the necessary support for structured business processes. Lynx provides a web service through which a work ...

Keywords: BPEL, E-mail, XML, digital government, web services, workflow, xforms

13 The Service Ecosystem: Dynamic Self-Aggregation of Pervasive Communication Services

Raffaele Quitadamo, Franco Zambonelli, Giacomo Cabri

May 2007 Proceedings of the 1st International Workshop on Software Engineering for Pervasive Computing Applications, Systems, and Environments SEPCASE '07

Publisher: IEEE Computer Society

Full text available: pdf(527.70 KB) Additional Information: full citation, abstract

The continuous growth in ubiquitous computing and network connectivity in our everyday environments calls for a deep rethinking of traditional communication service architectures. In pervasive scenarios, manually configuring communication service/protocols is becoming mostly unthinkable, due to the high heterogeneity of devices and services, and to the decentralized and embedded nature of the involved entities. The next step is towards the "componentization" of communication services, i.e. servi ...

pag	e 1): aggregat* and workflow and matix	Page
14 ③		
	With the emergence of application systems which encapsulate databases and related application components, pure data integration using, for example, a federated database system is not possible anymore. Instead, access via predefined functions is the only way to get data from an application system. As a result, retrieval of such heterogeneous and encapsulated data sources needs the combination of generic query as well as predefined function access. In this paper, we present a middleware approach s	
	Keywords : cost model, federated database system, function integration, heterogeneous query processing, workflow management system, wrapper	
15 ②	Developing and integrating enterprise components and services: Enterprise application integration and complex adaptive systems Jeff Sutherland, Willem-Jan van den Heuvel October 2002 Communications of the ACM, Volume 45 Issue 10 Publisher: ACM Press	
	Full text available: pdf(127.83 KB) Additional Information: full citation, abstract, references, citings, index terms	
	Could system integration and cooperation be improved with agentified enterprise components?	
16 ③	Telework under the co-ordination of a distributed workflow management system Wilhelm Dangelmaier, Stephan Kress, Rüdiger Wenski November 1997 Proceedings of the international ACM SIGGROUP conference on Supporting group work: the integration challenge GROUP '97 Publisher: ACM Press Full text available: pdf(1.47 MB) Additional Information: full citation, references, index terms	
	Keywords: co-ordinator, intranet, telework, workflow management	
17 ③	workflow management Heiko Ludwig, Keith Whittingham March 1999 ACM SIGSOFT Software Engineering Notes, Proceedings of the international joint conference on Work activities coordination and	
	international joint conference on Work activities coordination and collaboration WACC '99, Volume 24 Issue 2	

Publisher: ACM Press

Additional Information: full citation, abstract, references, citings, index Full text available: pdf(1.07 MB) terms

Today's Workflow Management Systems (WfMS) do not distinguish between an external view of a process that is visible outside the organisation and its internal details. Their interfaces are generally aimed at the internal user. This is a problem if one organisation (provider) wants to perform a process on behalf of another (requester) so that it can be initiated and accessed by the requester through an automated interface and, vice versa, that the results can be reported back. This issue gains impo ...

Keywords: agreement, gateway, virtual enterprise, workflow management

18 Web and e-business: Composing aggregate web services in BPEL

Oneyka Ezenwoye, S. Masoud Sadjadi

March 2006 Proceedings of the 44th annual Southeast regional conference ACM-SE 44

Publisher: ACM Press

Full text available: pdf(219.62 KB) Additional Information: full citation, abstract, references, index terms

Web services are increasingly being used to expose applications over the Internet. These Web services are being integrated within and across enterprises to create higher function services. BPEL is a workflow language that facilitates this integration. Although both academia and industry acknowledge the need for workflow languages, there are few technical papers focused on BPEL. In this paper, we provide an overview of BPEL and idscuss its promises, limitations and challenges.

Keywords: A2A integration, B2B integration, BPEL, business processes, web services, workflow language

19 Development of a library for reusable workflow objects

Andreas Hofmann

April 1997 ACM SIGGROUP Bulletin, Volume 18 Issue 1

Publisher: ACM Press

Full text available: pdf(638.07 KB) Additional Information: full citation, abstract, index terms

In the field of office automation technical machines and methods are used to make the workflows in the office more efficient and simple. One new method sets the focus on the optimization of the whole working process rather than on the optimization of a single function: Business Process Modeling or Workflow Modeling. Such processes, that are influencing the financial result of the whole company can be called "profit critical jobs". To achieve the aim of process optimization some tasks have to be ...

20 Heuristics-based scheduling of composite web service workloads

Thomas Phan, Wen-Syan Li

November 2006 Proceedings of the 1st workshop on Middleware for Service Oriented Computing (MW4SOC 2006) MW4SOC '06

Publisher: ACM Press

Full text available: pdf(114.39 KB) Additional Information: full citation, abstract, references, index terms

Web services can be aggregated to create composite workflows that provide streamlined functionality for human users or other systems. Although industry standards and recent research have sought to define best practices and to improve end-to-end workflow composition, one area that has not fully been explored is the scheduling of a workflow's web service requests to actual service provisioning in a multi-tiered, multi-organisation environment. This issue is relevant to modern business scenarios wh ...

Keywords: QoS, heuristics, scheduling, web services, workflows

Results 1 - 20 of 200 Result page: 1 2 3 4 5 6 7 8 9 10 next

The ACM Portal is published by the Association for Computing Machinery. Copyright © 2007 ACM, Inc.

<u>Terms of Usage Privacy Policy Code of Ethics Contact Us</u>

Useful downloads: Adobe Acrobat QuickTime Windows Media Player Real Player

Subscribe (Full Service) Register (Limited Service, Free) Login

Search: The ACM Digital Library

C The Guide

USPTO

coalit* and workflow and matix

THE ACM DIGITAL LIBRARY

Feedback Report a problem Satisfaction survey

Terms used: coalit and workflow and matix

Found 435 of 206,720

Sort results by

results

relevance Display expanded form

Save results to a Binder Search Tips Open results in a new

Try an Advanced Search Try this search in The ACM Guide

Results 1 - 20 of 200

Result page: **1** 2 3 4 5

window

6 789

next Relevance scale 🔲 📟 📟

Best 200 shown

Mobile and Cooperative Systems: Models for coalition-based access control (CBAC)

Eve Cohen, Roshan K. Thomas, William Winsborough, Deborah Shands

June 2002 Proceedings of the seventh ACM symposium on Access control models and technologies SACMAT '02

Publisher: ACM Press

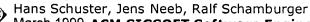
Full text available: pdf(205.97 KB)

Additional Information: full citation, abstract, references, citings, index terms

To effectively participate in modern coalitions, member organizations must be able to share specific data and functionality with coalition partners, while ensuring that their resources are safe from inappropriate access. This requires access control models, policies, and enforcement mechanisms for coalition resources. This paper describes a family of coalition-based access control (CBAC) models, developed to provide a range of expressivity with an accompanying range of implementation complexity. ...

Keywords: access control, authorizations, coalitions, domain models, roles, security policy, tasks, teams

A configuration management approach for large workflow management systems



March 1999 ACM SIGSOFT Software Engineering Notes , Proceedings of the international joint conference on Work activities coordination and collaboration WACC '99, Volume 24 Issue 2

Publisher: ACM Press

Full text available: pdf(1.38 MB)

Additional Information: full citation, abstract, references, citings, index terms

Scalability to large, heterogeneous, and distributed environments is an important requirement for workflow management systems (WfMS). As a consequence, the management of the configuration of a WfMS installation becomes a key issue. This paper proposes an approach for managing the configuration of WfMS together with an assignment strategy for workflow instances. Separating the logical issues of the workflow model from the physical configuration of a WfMS is the basis of our strategy. A formalizat ...

Keywords: configuration, scalability, workflow management system

3 Standardising on workflow-management—the OMG workflow management facility

Wolfgang Schulze, Christoph Bussler, Klaus Meyer-Wegener April 1998 ACM SIGGROUP Bulletin, Volume 19 Issue 1

Publisher: ACM Press

Full text available: pdf(952.29 KB) Additional Information: full citation, abstract, index terms

With over 800 members, the Object Management Group (OMG) is the largest international consortium of the software industry. Its goal is not only to promote the use of object technology in general but also to define and standardise on a common architectural framework across heterogeneous hardware platforms and operating systems, called the Object Management Architecture (OMA) [13]. In the standardisation process, the OMG focuses on commercially available object technology. So far, the OMG's effort ...

4 Session 3: An architecture for the interoperability of workflow models



Hamri Salah, Boufaida Mahmoud, Boudjiida Nacer

November 2005 Proceedings of the first international workshop on Interoperability of heterogeneous information systems IHIS '05

Publisher: ACM Press

Full text available: pdf(223.51 KB) Additional Information: full citation, abstract, references, index terms

The goal of this work is to contribute to the field of interoperability of Workflow models. To achieve interoperability, we have built a generic architecture that addresses three levels of abstraction: a common meta-model that the Workflow models must share, a common model that they enact collectively, and a common data model whose management is shared. So, the approach we have adopted is based on a strategy of uniformity to solve the problems related to the semantic, syntactic and execution pla ...

Keywords: canonical model, common meta-model, event, interoperability, process, semantic, workflow model

5 Process and workflow management: Introducing eservices in business process





models

Lerina Aversano, Gerardo Canfora

July 2002 Proceedings of the 14th international conference on Software engineering and knowledge engineering SEKE '02

Publisher: ACM Press

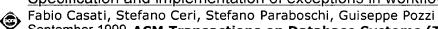
Full text available: pdf(249.37 KB)

Additional Information: $\underline{\text{full citation}}$, $\underline{\text{abstract}}$, $\underline{\text{references}}$, $\underline{\text{citings}}$, $\underline{\text{index}}$

The need for automatic support of business processes that extend over the boundaries of an enterprise is a recognized need of emerging virtual organizations. To make workflow technologies useful during the enactment of business processes involving many partners that reciprocally provide and consume services, it is important to provide a model, and supporting technologies, to manage the introduction of services in workflow models. This paper introduces a framework for the introduction of eServices ...

Keywords: eservices, process models, workflow management

⁶ Specification and implementation of exceptions in workflow management systems



September 1999 ACM Transactions on Database Systems (TODS), Volume 24 Issue 3

Publisher: ACM Press

Full text available: pdf(250.40 KB)

Additional Information: full citation, abstract, references, citings, index terms

Although workflow management systems are most applicable when an organization follows standard business processes and routines, any of these processes faces the need for handling exceptions, i.e., asynchronous and anomalous situations that fall outside the normal control flow. In this paper we concentrate upon anomalous situations that, although unusual, are part of the semantics of workflow applications, and should be specified and monitored coherently; in most real-life applica ...

Keywords: active rules, asynchronous events, exceptions, workflow management systems

7 Workflow technology: trade-offs for business process re-engineering

Keith D. Swenson, Kent Irwin

August 1995 Proceedings of conference on Organizational computing systems COCS '95

Publisher: ACM Press

Full text available: pdf(868.25 KB)

Additional Information: full citation, abstract, references, citings, index terms

The relationship is examined between Business Process Reengineering (BPR), a significant new management trend across all industries, and Workflow Technology a new and rapidly expanding sector of the software market. Since Workflow is a market driven technology, in order to make a meaningful analysis, we start by presenting the current state of the art in workflow technology, as uncovered by our work within the Workflow Management Coalition. Some aspects of workflow are found to be w ...

8 Virtual enterprise co-ordinator—agreement-driven gateways for cross-organisational





workflow management

Heiko Ludwig, Keith Whittingham

March 1999 ACM SIGSOFT Software Engineering Notes, Proceedings of the international joint conference on Work activities coordination and collaboration WACC '99, Volume 24 Issue 2

Publisher: ACM Press

Full text available: pdf(1.07 MB)

Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>, <u>citings</u>, <u>index</u> terms

Today's Workflow Management Systems (WfMS) do not distinguish between an external view of a process that is visible outside the organisation and its internal details. Their interfaces are generally aimed at the internal user. This is a problem if one organisation (provider) wants to perform a process on behalf of another (requester) so that it can be initiated and accessed by the requester through an automated interface and, vice versa, that the results can be reported back. This issue gains impo ...

Keywords: agreement, gateway, virtual enterprise, workflow management

9 Simulation modeling within workflow technology



John A. Miller, Amit P. Sheth, Krys J. Kochut, Xuzhong Wang, Arun Murugan December 1995 Proceedings of the 27th conference on Winter simulation WSC '95

Publisher: ACM Press, IEEE Computer Society

Full text available: pdf(881.58 KB)

Additional Information: full citation, abstract, references, citings, index

This paper presents an approach for integrating simulation modeling and analysis capabilities within the workflow management system (WFMS) being developed in the Large Scale Distributed Information Systems (LSDIS) Lab at the University of Georgia. Simulation modeling can be used for studying the efficiency of workflow designs as well as studying the general performance and reliability of WFMSs. We also discuss the importance of using sophisticated monitoring and animation capabilities, and the u ...

10 WorkFlow systems: a few definitions and a few suggestions



Paulo Barthelmess, Jacques Wainer

August 1995 Proceedings of conference on Organizational computing systems COCS

Publisher: ACM Press

Full text available: pdf(1.02 MB)

Additional Information: full citation, abstract, references, citings, index

<u>terms</u>

This paper hopes to make a contribution on three aspects of workflow systems: we stress the fact that there is a broken symetry between the level of the specification of the procedures and the level of their enactment; we propose some ways of classifying activities and exceptions; and we propose some run-time functionalities to help users deal with exceptions.

11 Flexible specification of workflow compensation scopes



\(\lambda \)

Weimin Du, Jim Davis, Ming-Chien Shan

November 1997 Proceedings of the international ACM SIGGROUP conference on Supporting group work: the integration challenge GROUP '97

Publisher: ACM Press

Full text available: pdf(1.18 MB)

Additional Information: full citation, references, citings, index terms

Keywords: compensation, compensation scope, workflow

Data flow and validation in workflow modelling

Shazia Sadiq, Maria Orlowska, Wasim Sadiq, Cameron Foulger

January 2004 Proceedings of the 15th Australasian database conference - Volume 27 ADC '04

Publisher: Australian Computer Society, Inc.

Full text available: pdf(136.98 KB) Additional Information: full citation, abstract, references, index terms

A complete workflow specification requires careful integration of many different process characteristics. Decisions must be made as to the definitions of individual activities, their scope, the order of execution that maintains the overall business process logic, the rules governing the discipline of work list scheduling to performers, identification of time constraints and more. The goal of this paper is to address an important issue in workflows modelling and specification, which is data flow, ...

Keywords: business process modelling, data validation, workflow data

13 Handling uncertainties in workflow applications



Jian Tang, San-Yih Hwang

November 1996 Proceedings of the fifth international conference on Information and knowledge management CIKM '96

Publisher: ACM Press

Full text available: pdf(833.51 KB) Additional Information: full citation, references, citings, index terms

14 Report from the NSF workshop on workflow and process automation in information



systems

Amit Sheth, Dimitrios Georgakopoulos, Stef M. M. Joosten, Marek Rusinkiewicz, Walt Scacchi, Jack Wileden, Alexander L. Wolf

January 1997 ACM SIGSOFT Software Engineering Notes, Volume 22 Issue 1

Publisher: ACM Press

Full text available: Topology Additional Information: full citation, abstract, citings, index terms

An interdisciplinary research community needs to address challenging issues raised by applying workflow management technology in information systems. This conclusion results from the NSF workshop on Workflow and Process Automation in Information Systems which was held at the State Botanical Garden of Georgia during May 8-10, 1996. The workshop brought together active researchers and practitioners from several communities, with significant representation from database and distributed systems, sof ...

15	Report from the NSF workshop on workflow and process automation in information					
(systems					
~	Amit Sheth, Dimitrios Georgakopoulos, Stef M. M. Joosten, Marek Rusinkiewicz, Walt Scacchi,					
	Jack Wileden, Alexander L. Wolf					
	December 1996 ACM SIGMOD Record, Volume 25 Issue 4					
	Publisher: ACM Press					
	Full text available: pdf(1.31 MB) Additional Information: full citation, abstract, citings, index terms					
	An interdisciplinary research community needs to address challenging issues raised by applying workflow management technology in information systems. This conclusion results from the NSF workshop on Workflow and Process Automation in Information Systems which was held at the State Botanical Garden of Georgia during May 8-10, 1996. The workshop brought together active researchers and practitioners from several communities, with significant representation from database and distributed systems					
16	Virtual transaction model to support workflow applications					
	Vasudev Krishnamoorthy, Ming-Chien Shan					
②	March 2000 Proceedings of the 2000 ACM symposium on Applied computing - Volume					
	2 SAC '00					
	Publisher: ACM Press					
	Full text available: pdf(459.17 KB) Additional Information: full citation, references, index terms					
	Keywords: compensation, isolation, transactions, workflow					
17	Escalations in workflow management systems					
	E. Panagos, M. Rabinovich					
(2)	November 1996 Proceedings of the workshop on on Databases: active and real-time					
	CIKM '96					
	Publisher: ACM Press					
	Full text available: 🔁 pdf(310.83 KB) Additional Information: full citation, references, citings, index terms					
	<u> </u>					
18	Logic based modeling and analysis of workflows					
٨	Hasan Davulcu, Michael Kifer, C. R. Ramakrishnan, I. V. Ramakrishnan					
•	May 1998 Proceedings of the seventeenth ACM SIGACT-SIGMOD-SIGART symposium on Principles of database systems PODS '98					
	Publisher: ACM Press					
	Full text available: pdf(1.23 MB) Additional Information: full citation, references, citings, index terms					
19	Integrating synchronous multimedia collaboration into workflow management					
	Michael Weber, Gerhard Partsch, Siegfried Höck, Georg Schneider, Astrid Scheller-Houy, Jean					
③	Schweitzer					
	November 1997 Proceedings of the international ACM SIGGROUP conference on					
	Supporting group work: the integration challenge GROUP '97					
	Publisher: ACM Press Full text available: pdf(1.20 MB) Additional Information: full citation, references, citings, index terms					
	Tall text available. Apol(1.20 MD) Additional information. idit citation, references, during, index terms					
	\cdot					
	Keywords : brokerage, conference assistant, teleconfercing, trading, workflow management					

Peter Mangan, Shazia Sadiq

January 2002 Australian Computer Science Communications , Proceedings of the 13th

Australasian database conference - Volume 5 ADC '02, Volume 24 Issue 2

Publisher: Australian Computer Society, Inc., IEEE Computer Society Press

Full text available: pdf(669.40 KB)

Additional Information: full citation, abstract, references, cited by, index terms

Process support systems, such as workflows, are being used in a variety of domains. However, most areas of application have focused on traditional production-style processes, which are characterized by predictability and repetitiveness. Application in non-traditional domains with highly flexible process is still largely unexplored. Such flexible processes are characterized by lack of ability to completely predefine and/or an explosive number of alternatives. Accordingly we define flexibility as ...

Keywords: constraint specification, flexible workflow, tertiary education

Results 1 - 20 of 200

Result page: 1 2 3 4 5 6 7 8 9 10 next

The ACM Portal is published by the Association for Computing Machinery. Copyright © 2007 ACM, Inc.

Terms of Usage Privacy Policy Code of Ethics Contact Us

Useful downloads: Adobe Acrobat Q QuickTime Windows Media Player Real Player



Subscribe (Full Service) Register (Limited Service, Free) Login

Search: The ACM Digital Library The Guide

collaborat* and workflow and matix

ithe acm dichal library

Feedback Report a problem Satisfaction survey

Terms used: collaborat and workflow and matix

Found 3,004 of 206,720

Sort results by

Display

results

relevance expanded form Save results to a Binder Search Tips Open results in a new

Try an Advanced Search Try this search in The ACM Guide

Results 1 - 20 of 200

window

Result page: **1** <u>2</u> <u>3</u> <u>4</u> <u>5</u> <u>6</u> <u>7</u> <u>8</u> 9 10

Best 200 shown

Relevance scale 🔲 🖥

2-2 VRC in engineering: A multimedia workflow-based collaborative engineering



environment for oil & gas industry

Ismael H. F. Santos, Martin Göbel, Alberto B. Raposo, Marcelo Gattass

June 2004 Proceedings of the 2004 ACM SIGGRAPH international conference on Virtual Reality continuum and its applications in industry VRCAI '04

Publisher: ACM Press

Full text available: pdf(293.97 KB) Additional Information: full citation, abstract, references, index terms

In this paper we discuss the scenario of Petroleum Engineering projects of Petrobras, a large Brazilian governmental oil & gas company. Based on this scenario, we propose a set of application requirements and system architecture to guide the construction of a Collaborative Engineering Environment (CEE) for assisting the control and execution of large and complex industrial projects in oil and gas industry. The environment is composed by the integration of three different technologies of d ...

Keywords: collaborative engineering, collaborative virtual environments, workflow systems

Integrating synchronous multimedia collaboration into workflow management



Michael Weber, Gerhard Partsch, Siegfried Höck, Georg Schneider, Astrid Scheller-Houy, Jean Schweitzer

November 1997 Proceedings of the international ACM SIGGROUP conference on Supporting group work: the integration challenge GROUP '97

Publisher: ACM Press

Full text available: pdf(1.20 MB)

Additional Information: full citation, references, citings, index terms

Keywords: brokerage, conference assistant, teleconfercing, trading, workflow management

Supporting virtual organisation alliances with relative workflows

Xiaohui Zhao, Chengfei Liu, Yun Yang

January 2006 Proceedings of the 3rd Asia-Pacific conference on Conceptual modelling - Volume 53 APCCM '06

Publisher: Australian Computer Society, Inc.

Full text available: pdf(343.40 KB) Additional Information: full citation, abstract, references, index terms

Driven by the fast changing service demand-and-supply requirements, virtual organisation alliances are created to adapt highly dynamic B2B collaborations. However, the temporary partnership and low trustiness between collaborating organisations raise

challenges to effectively manage collaborative business processes. This paper presents an approach on the basis of a service oriented relative workflow model to support virtual organisation alliances. This approach takes an organisation centred desi ...

Keywords: business process modelling, service oriented computing, virtual organisation alliance

4 Research papers: software process & workflow: Publishing and composition of



atomicity-equivalent services for B2B collaboration Chunyang Ye, S. C. Cheung, W. K. Chan

May 2006 Proceeding of the 28th international conference on Software engineering ICSE '06

Publisher: ACM Press

Full text available: pdf(470.37 KB)

Additional Information: full citation, abstract, references, cited by, index

Exception handling resolves inconsistency by backward or forward error recovery methods or both in Business-to-Business (B2B) process collaboration. To avoid committing irrevocable tasks followed by exceptions, B2B processes, which quarantee the atomicity sphere property, are attractive. While atomicity sphere ensures its outcomes to be either all or nothing, conflicting local recoveries may lead to global B2B inconsistencies. Existing (global) analysis techniques however mandate every process u ...

Keywords: atomicity, process algebra, process collaboration, public view

5 Internet-based workflows: a paradigm for dynamically reconfigurable desktop





environments

Hemang Lavana, Amit Khetawat, Franc Brglez

November 1997 Proceedings of the international ACM SIGGROUP conference on Supporting group work: the integration challenge GROUP '97

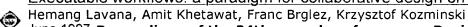
Publisher: ACM Press

Full text available: pdf(1.47 MB)

Additional Information: full citation, references, citings, index terms

Keywords: Internet, Petri net, collaborative, desktop, reconfigurable, recordable, workflows

6 Executable workflows: a paradigm for collaborative design on the Internet



June 1997 Proceedings of the 34th annual conference on Design automation DAC '97

Publisher: ACM Press

Full text available: pdf(358.82 KB)

Additional Information: full citation, abstract, references, citings, index

This paper introduces a directed hypergraph modelthat supports (1) workflow composition and reconfigurationwhile accessing and executing programs, data, and computingresources across the Internet, (2) synchronous and asynchronouspeer-to-peer interaction between members of anyteam during workflow composition and execution, (3) synchronous and asynchronous peer-to-workflow interaction between any team member and any object in the workflow. Given a library of program and data nodes, editing theworkflo ...

7 Organizational engineering: Supporting effective unexpected exceptions handling in





workflow management systems

Hernâni Mourão, Pedro Antunes

March 2007 Proceedings of the 2007 ACM symposium on Applied computing SAC '07

Publisher: ACM Press

Full text available: pdf(278.92 KB) Additional Information: full citation, abstract, references, index terms

This paper proposes a novel architectural framework handling effective unexpected exceptions in workflow management systems (WfMS). Effective unexpected exceptions are events for which the organizations lack handling strategies. Unstructured human interventions are necessary to overcome these situations, but clash with the type of model control currently exercised by WfMS. The proposed framework uses the notion of map guidance to orchestrate these human interventions. Map guidance empowers us ...

Keywords: collaboration support, unexpected exceptions, unstructured organizational activities, workflow management systems

Harnessing technology for effective inter- and intra-institutional collaboration: report of the ITiCSE '97 working group on supporting inter- and intra-institutional

<u>collaboration</u>

Douglas Siviter, Marian Petre, Bruce Klein

October 1997 ACM SIGCUE Outlook, Volume 25 Issue 4

Publisher: ACM Press

Full text available: pdf(2.66 MB) Additional Information: full citation, abstract, references, index terms

The computer science discipline is well poised to provide leading examples of harnessing communications and computer technologies in order to encourage collaborative practices both within and between institutions. Students, academics, and institutions all potentially have access to their counterparts world-wide. This provides endless opportunities for sharing knowledge, accessing scarce expertise, making effective re-use of limited resources, collaborating to attract funding and influence polici ...

Harnessing technology for effective inter- and intra-institutional collaboration (report of the ITICSE '97 working group on supporting inter- and intra institutional collaboration)

Douglas Siviter, Marian Petre, Bruce Klein

June 1997 The supplemental proceedings of the conference on Integrating technology into computer science education: working group reports and supplemental proceedings ITiCSE-WGR '97

Publisher: ACM Press

Full text available: pdf(145.01 KB) Additional Information: full citation, references, citings, index terms

10 Team-based access control (TMAC): a primitive for applying role-based access

controls in collaborative environments

Roshan K. Thomas

November 1997 Proceedings of the second ACM workshop on Role-based access control RBAC '97

Publisher: ACM Press

Full text available: pdf(745.93 KB) Additional Information: full citation, references, citings, index terms

11 Fifth Australasian Symposium on Grid Computing and e-Research (AusGrid 2007): Developing CIMA-based cyberinfrastructure for remote access to scientific instruments and collaborative e-research

Ian M. Atkinson, Douglas du Boulay, Clinton Chee, Kenneth Chiu, Paul Coddington, Andrea Gerson, Tristan King, Donald F. McMullen, Romain Quilici, Peter Turner, Andrew Wendelborn, Mathew Wyatt, Donglai Zhang

January 2007 Proceedings of the fifth Australasian symposium on ACSW frontiers - Volume 68 ACSW '07

Publisher: Australian Computer Society, Inc.

Full text available: ndf(360.85 KB) Additional Information: full citation, abstract, references

An infrastructure for remote instrument access, data acquisition and data management is being developed for e-Research. The Common Instrument Middleware Architecture (CIMA) is being used to provide a scalable and extensible basis for the cyberinfrastructure, and Xray diffraction is targeted as an ideal development domain. Australian research is enhancing the CIMA model to enable federated Grid storage via SRB, and the use of the Kepler workflow system. Kepler has been introduced to enable au ...

Keywords: CIMA, GridSphere, SRB, collaboration, crystallography, cyberinfrastructure, e-research, grid services, kepler, remote access, virtual instrument, web services

12 Workflow applications and models: Supporting large-scale science with workflows Deana D. Pennington



June 2007 Proceedings of the 2nd workshop on Workflows in support of large-scale science WORKS '07

Publisher: ACM Press

Full text available: pdf(316.04 KB) Additional Information: full citation, abstract, references, index terms

Current workflow systems support data flow through complex analyses in a distributed environment. The scope of scientific workflow systems could expand to support the entire scientific research cycle, which includes data flow, design flow, and knowledge flow tasks. Example tasks and requirements within each of these are explored, illustrated by a use case in environmental science. Nexus points between scientific tasks and potential workflow support mechanisms are identified and described. Sev ...

Keywords: needs assessment, scientific workflows

13 Session2: Process descriptions as organisational accounting devices: the dual use of





workflow technologies

Paul Dourish

September 2001 Proceedings of the 2001 International ACM SIGGROUP Conference on Supporting Group Work GROUP '01

Publisher: ACM Press

Full text available: pdf(150.23 KB)

Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>, <u>citings</u>, <u>index</u> terms

Workflow technologies present a problem for CSCW. On the one hand, they are perhaps the most successful form of groupware techinology in current use; but on the other, they have been subject to sustained and cogent critiques, particularly from perspective of the analysis of everyday working activities. This leads inevitably to the question: in the face of these critiques, just why and how do workaflow technologies prove effective? This paper suggests that part of the solution lies in the fact th ...

14 Distributed teams: Capturing and supporting contexts for scientific data sharing via



the biological sciences collaboratory George Chin, Carina S. Lansing

November 2004 Proceedings of the 2004 ACM conference on Computer supported cooperative work CSCW '04

Publisher: ACM Press

Full text available: pdf(1.29 MB)

Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>, citings, index terms

Scientific collaboration is largely focused on the sharing and joint analysis of scientific data and results. Today, a movement is afoot within the scientific computing community to shift "collaboratory" development from traditional tool-centric approaches to more data-centric ones. Yet, to effectively support data sharing means more than providing a common repository for storing and retrieving shared data sets. In order to reasonably comprehend and apply another researcher's data set, the sc ...

Keywords: collaboratory, data provenance, data sharing, data sharing contexts, datacentric collaboration, metadata, scientific workflow, tool-centric collaboration

15 Session F4: VR collaboration and applications: A review on effective closely-coupled

collaboration using immersive CVE's Oliver Otto, Dave Roberts, Robin Wolff

June 2006 Proceedings of the 2006 ACM international conference on Virtual reality continuum and its applications VRCIA '06

Publisher: ACM Press

Full text available: pdf(621.08 KB) Additional Information: full citation, abstract, references, index terms

Many teamwork tasks require a close coupling between the interactions of members of a team. For example, intention and opinion must be communicated, while synchronously manipulating shared artefacts. In face-to-face interaction this communication and manipulation is seamless. Transferring the straightforwardness of such collaboration onto remote located teams is technologically challenging. This survey paper explains why immersive collaborative virtual environments (CVE) suit such tasks. The eff ...

Keywords: closely-coupled collaboration, immersive CVEs, object interaction

16 <u>Secure collaboration: Inter-instance authorization constraints for secure workflow</u>





management

Janice Warner, Vijayalakshmi Atluri

June 2006 Proceedings of the eleventh ACM symposium on Access control models and technologies SACMAT '06

Publisher: ACM Press

Full text available: pdf(253.13 KB) Additional Information: full citation, abstract, references, index terms

Work flows model and control the execution of business process in an organization. They are typically comprised of tasks or logical steps in the business process. To mitigate the ability of insiders to commit fraud, care should be taken that people authorized to perform critical tasks cannot collude. This is typically done through the specification of separation of duty (SOD)constraints. SOD constraints impose restrictions on which users or roles can be assigned to tasks and have been dis ...

Keywords: authorization constraints, security, work flow

17 Workflow technology: trade-offs for business process re-engineering



Keith D. Swenson, Kent Irwin

August 1995 Proceedings of conference on Organizational computing systems COCS

Publisher: ACM Press

Full text available: pdf(868.25 KB)

Additional Information: full citation, abstract, references, citings, index

The relationship is examined between Business Process Reengineering (BPR), a significant new management trend across all industries, and Workflow Technology a new and rapidly expanding sector of the software market. Since Workflow is a market driven technology, in order to make a meaningful analysis, we start by presenting the current state of the art in workflow technology, as uncovered by our work within the Workflow Management Coalition. Some aspects of workflow are found to be w ...

18 Evaluating procedural aspects of intense collaboration



October 2004 Proceedings of the third Nordic conference on Human-computer interaction NordiCHI '04

Publisher: ACM Press

Full text available: pdf(158.68 KB) Additional Information: full citation, abstract, references, index terms

This paper investigates and evaluates some of the procedural aspects of intense collaborative activities. It reports on a study where orchestrated procedural support and guidance assisted presenters in a series of research review sessions. Applications were invoked automatically on behalf of the presenters and an awareness mechanism steered each session and helped speakers stay within their time frames. These orchestration activities were initially undertaken by an observer, but over a series ...

Keywords: intense collaboration, procedural guidance, procedural support, workspace awareness, workspace orchestration

19 Industrial session: POLESTAR: collaborative knowledge management and

٠

sensemaking tools for intelligence analysts
Nicholas J. Pioch, John O. Everett

November 2006 Proceedings of the 15th ACM international conference on Information and knowledge management CIKM '06

Publisher: ACM Press

Full text available: pdf(1.69 MB) Addition

Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>, <u>index terms</u>

In this paper, we describe POLESTAR (POLicy Explanation using STories and ARguments), an integrated suite of knowledge management and collaboration tools for intelligence analysts.POLESTAR provides built-in support for analyst workflow, including collection of textual facts from source documents, structured argumentation, and automatic citation in analytic product documents. Underlying POLESTAR is a scalable dependency repository, which provides traceability from product documents to source snip ...

Keywords: argument structuring, collaboration, intelligence analysis, knowledge management, knowledge representation, sensemaking, workflow management

Workflow = OIS? A report of a workshop at the CSCW '94 conference



Dirk E. Mahling, Carson Woo, Rick Blumenthal, Hans Schlichter, Thilo Horstman August 1995 **ACM SIGOIS Bulletin**, Volume 16 Issue 1

Publisher: ACM Press

Full text available: pdf(742.27 KB) Additional Information: full citation, abstract, index terms

The idea for this workshop was born during the 1993 Conference on Organizational Computing Systems (COOCS). Researchers and developers from academia and industry who attended the conference were sharing their observations and concerns on the absence of a connection between earlier work presented at COOCS and the current presentations of workflow systems.

Historically, COOCS has focused on office automation and office information systems (OIS). During the 1980s numerous OIS were pre ...

Results 1 - 20 of 200 Result page: 1 2 3 4 5 6 7 8 9 10 nex

The ACM Portal is published by the Association for Computing Machinery. Copyright © 2007 ACM, Inc.

Terms of Usage Privacy Policy Code of Ethics Contact Us

Useful downloads: Adobe Acrobat QuickTime Windows Media Player Real Player



Subscribe (Full Service) Register (Limited Service, Free) Login

Search: • The ACM Digital Library

C The Guide

workflow and matix and vertic*

TO THE

ITHE AGM DIGITIAL LIBRARY

Feedback Report a problem Satisfaction survey

Terms used: workflow and matix and vertic

Found 748 of 206,720

Sort results by

Display

results

relevance expanded form Save results to a Binder Search Tips Open results in a new

Try an Advanced Search Try this search in The ACM Guide

window

Results 1 - 20 of 200

Result page: 1 2

3 4 7

next Relevance scale ...

Best 200 shown

The specification and enforcement of authorization constraints in workflow

management systems

Elisa Bertino, Elena Ferrari, Vijay Atluri

February 1999 ACM Transactions on Information and System Security (TISSEC), Volume 2 Issue 1

Publisher: ACM Press

Full text available: pdf(374.02 KB)

Additional Information: full citation, abstract, references, citings, index

In recent years, workflow management systems (WFMSs) have gained popularity in both research and commercial sectors. WFMSs are used to coordinate and streamline business processes. Very large WFMSs are often used in organizations with users in the range of several thousands and process instances in the range of tens and thousands. To simplify the complexity of security administration, it is common practice in many businesses to allocate a role for each activity in the process and then assig ...

Keywords: access control, authorization constraints, role and user planning

Extending workflow-management-systems by a dialogical component

H. Wedekind

February 1996 Proceedings of the 1996 ACM symposium on Applied Computing SAC

Publisher: ACM Press

Full text available: Topdf(749.34 KB) Additional Information: full citation, references, citings, index terms

Keywords: cooperative database, explanatory dialogs, indefinite workflow functions, issue based information system

3 Database theory, technology and applications (DTTA): Enhancement of workflow



flexibility by composing activities at run-time

ShuiGuang Deng, Zhen Yu, ZhaoHui Wu, LiCan Huang

March 2004 Proceedings of the 2004 ACM symposium on Applied computing SAC '04

Publisher: ACM Press

Full text available: pdf(390.91 KB) Additional Information: full citation, abstract, references, index terms

Flexibility has recently grown to be one of the major research topics in the area of workflow management. A workflow system that supports flexible processes will benefit organizations more. In this paper, we present a workflow model offering flexibility by

enabling activities to be composed automatically or manually at run-time. Our model uses selection constraints and composition constraints to guide end users to build valid workflow specifications. As an application of this model, we outline t ...

Keywords: ECA, flexible process, workflow, workflow model

4 Global transaction support for workflow management systems: from formal specification to practical implementation

Paul Grefen, Jochem Vonk, Peter Apers

December 2001 The VLDB Journal — The International Journal on Very Large Data Bases, Volume 10 Issue 4

Publisher: Springer-Verlag New York, Inc.

Full text available: pdf(260.06 KB) Additional Information: full citation, abstract, citings, index terms

In this paper, we present an approach to global transaction management in workflow environments. The transaction mechanism is based on the well-known notion of compensation, but extended to deal with both arbitrary process structures to allow cycles in processes and safepoints to allow partial compensation of processes. We present a formal specification of the transaction model and transaction management algorithms in set and graph theory, providing clear, unambiguous transaction semantics. The ...

Keywords: Compensation, Long-running transaction, Transaction Management, Workflow management

5 Access control model II: Supporting conditional delegation in secure workflow

management systems

Vijayalakshmi Atluri, Janice Warner

June 2005 Proceedings of the tenth ACM symposium on Access control models and technologies SACMAT '05

Publisher: ACM Press

Full text available: pdf(255.50 KB)

Additional Information: full citation, abstract, references, citings, index terms

Workflows model and control the execution of business processes in an organization. A workflow typically comprises of a set of coordinated activities, known as tasks. Typically, organizations establish a set of security policies, that regulate how the business process and resources should be managed. While a simple policy may specify which user (or role) can be assigned to execute a task, a complex policy may specify authorization constraints, such as *separation of duties*. Users may *de ...*

Keywords: constraints, delegation, workflow

6 Document analysis: Digital capture for automated scanner workflows

Steven J. Simske, Scott C. Baggs
October 2004 Proceedings of the 2004 ACM symposium on Document engineering
DocEng '04

Publisher: ACM Press

Full text available: pdf(1.05 MB) Additional Information: full citation, abstract, references, index terms

The use of scanners and other capture devices to incorporate film- and paper-based materials into digital workflows is an important part of "digital convergence", or the bringing of paper-based and electronic documents together into the same electronic workflows. The diversity of captured information-from text and mixed-type documents to photos, negatives, slides and transparencies-requires a combination of document analysis techniques to perform, automatically, the segmentation, classificati ...

Keywords: classification, negatives, photos, scanning, segmentation, slides, user interface, zoning

7 �	Specification and implementation of exceptions in workflow management systems Fabio Casati, Stefano Ceri, Stefano Paraboschi, Guiseppe Pozzi September 1999 ACM Transactions on Database Systems (TODS), Volume 24 Issue 3 Publisher: ACM Press	
	Full text available: pdf(250.40 KB) Additional Information: full citation, abstract, references, citings, index terms	
	Although workflow management systems are most applicable when an organization follows standard business processes and routines, any of these processes faces the need for handling exceptions, i.e., asynchronous and anomalous situations that fall outside the normal control flow. In this paper we concentrate upon anomalous situations that, although unusual, are part of the semantics of workflow applications, and should be specified and monitored coherently; in most real-life applica	
	Keywords : active rules, asynchronous events, exceptions, workflow management systems	
8	Standardising on workflow-management—the OMG workflow management facility Wolfgang Schulze, Christoph Bussler, Klaus Meyer-Wegener April 1998 ACM SIGGROUP Bulletin, Volume 19 Issue 1 Publisher: ACM Press	
	Full text available: pdf(952.29 KB) Additional Information: full citation, abstract, index terms	
	With over 800 members, the Object Management Group (OMG) is the largest international consortium of the software industry. Its goal is not only to promote the use of object technology in general but also to define and standardise on a common architectural framework across heterogeneous hardware platforms and operating systems, called the Object Management Architecture (OMA) [13]. In the standardisation process, the OMG focuses on commercially available object technology. So far, the OMG's effort	
9	WorkWeb system—multi-workflow management with a multi-agent system Hiroyuki Tarumi, Koji Kida, Yoshihide Ishiguro, Kenji Yoshifu, Takayoshi Asakura November 1997 Proceedings of the international ACM SIGGROUP conference on Supporting group work: the integration challenge GROUP '97 Publisher: ACM Press Full text available: pdf(1.38 MB) Additional Information: full citation, references, citings, index terms	
	Keywords : dynamic rescheduling, multi-agent systems, schedule management, workflow systems	
10	A flexible model supporting the specification and enforcement of role-based authorization in workflow management systems Elisa Bertino, Elena Ferrari, Vijayalakshmi Atluri	
	November 1997 Proceedings of the second ACM workshop on Role-based access control RBAC '97 Publisher: ACM Press	
	Full text available: pdf(1.37 MB) Additional Information: full citation, references, citings, index terms	
11	Report from the NSF workshop on workflow and process automation in information	
•	<u>systems</u> Amit Sheth, Dimitrios Georgakopoulos, Stef M. M. Joosten, Marek Rusinkiewicz, Walt Scacchi, Jack Wileden, Alexander L. Wolf	_

January 1997 ACM SIGSOFT Software Engineering Notes, Volume 22 Issue 1

Publisher: ACM Press

Full text available: pdf(1.24 MB) Additional Information: full citation, abstract, citings, index terms

An interdisciplinary research community needs to address challenging issues raised by applying workflow management technology in information systems. This conclusion results from the NSF workshop on Workflow and Process Automation in Information Systems which was held at the State Botanical Garden of Georgia during May 8-10, 1996. The workshop brought together active researchers and practitioners from several communities, with significant representation from database and distributed systems, sof ...

12 Report from the NSF workshop on workflow and process automation in information

systems

Amit Sheth, Dimitrios Georgakopoulos, Stef M. M. Joosten, Marek Rusinkiewicz, Walt Scacchi, Jack Wileden, Alexander L. Wolf

December 1996 ACM SIGMOD Record, Volume 25 Issue 4

Publisher: ACM Press

Full text available: pdf(1.31 MB)

Additional Information: full citation, abstract, citings, index terms

An interdisciplinary research community needs to address challenging issues raised by applying workflow management technology in information systems. This conclusion results from the NSF workshop on Workflow and Process Automation in Information Systems which was held at the State Botanical Garden of Georgia during May 8-10, 1996. The workshop brought together active researchers and practitioners from several communities, with significant representation from database and distributed systems ...

13 Workflow technology: trade-offs for business process re-engineering





Keith D. Swenson, Kent Irwin

August 1995 Proceedings of conference on Organizational computing systems COCS '95

Publisher: ACM Press

Full text available: pdf(868.25 KB)

Additional Information: full citation, abstract, references, citings, index terms

The relationship is examined between Business Process Reengineering (BPR), a significant new management trend across all industries, and Workflow Technology a new and rapidly expanding sector of the software market. Since Workflow is a market driven technology, in order to make a meaningful analysis, we start by presenting the current state of the art in workflow technology, as uncovered by our work within the Workflow Management Coalition. Some aspects of workflow are found to be w ...

14 E-government services and policy track: Managing inter-organisational workflows in



<u>eGovernment services</u>

Devendra K. Punia, K. B. C. Saxena

March 2004 Proceedings of the 6th international conference on Electronic commerce ICEC '04

Publisher: ACM Press

Full text available: pdf(130.20 KB) Additional Information: full citation, abstract, references, index terms

E-government refers to the use of ICTs to promote more efficient and effective government services, allow greater public access to information and make government more accountable to citizens. Though e-government initiatives are common in most countries, getting the claimed benefits of e-government has not been easy for various technological as well as organisational reasons. In addition to government structures and ICT systems, government processes have played a very significant role in bringin ...

Keywords: coordination, eGovernment applications, modelling, performance and design



Enhancing workflows by web technology

Wolfgang Gräther, Wolfgang Prinz, Sabine Kolvenbach

November 1997 Proceedings of the international ACM SIGGROUP conference on Supporting group work: the integration challenge GROUP '97

Publisher: ACM Press

Full text available: pdf(1.34 MB)

Additional Information: full citation, references, citings, index terms

Keywords: HTML, Internet, electronic circulation folder, workflow

16 Integrated document and workflow management applied to the offer processing of a



machine tool company

Stefan Morschheuser, Heinz Raufer

August 1995 Proceedings of conference on Organizational computing systems COCS '95

Publisher: ACM Press

Full text available: pdf(1.29 MB)

Additional Information: <u>full citation</u>, <u>abstract</u>, <u>references</u>, <u>citings</u>, index terms

Introducing document and workflow management systems causes two main problems: How can the supported business processes be adequately modeled? How can existing information systems and databases be integrated? Within this paper, we present tools, methods and other approaches, which are designed to solve these problems. They are illustrated by the offer processing of a machine tool company. This process starts with a custome ...

17 Systems session 2: distributed systems: DANS: decentralized, autonomous, and



networkwide service delivery and multimedia workflow processing

Gisik Kwon, K. Selçuk Candan

October 2006 Proceedings of the 14th annual ACM international conference on Multimedia MULTIMEDIA '06

Publisher: ACM Press

Full text available: pdf(290.32 KB) Additional Information: full citation, abstract, references, index terms

Fundamental challenges in designing environments with media-rich ambient services involves not only the development of appropriate sensing technologies, but as importantly, the implementation of a distributed media processing system which can process, integrate, and leverage the sensed data in real time to provide the various services. In recent years, a great deal of progress has been made in media service workflow processing systems. In most existing solutions, however, the workflow nodes,

Keywords: media processing workflows, peer-to-peer computing, stream workflow processing

18 CrossFlow: integrating workflow management and electronic commerce



Publisher: ACM Press

Full text available: pdf(79.63 KB)

Additional Information: full citation, abstract, references, citings, index

The CrossFlow architecture provides support for cross-organisational workflow management in dynamically established virtual enterprises. The creation of a business relationship between a service provider organisation performing a service on behalf of a consumer organisation can be made dynamic when augmented by virtual market technology, the dynamic configuration of the contract enactment infrastructures, and the provision of fine-grained service monitoring and control. Standard ways of describin ...

Keywords: contracts, dynamic business process outsourcing, dynamic infrastructure setup, electronic, electronic commerce, workflow management

19 A specification language for the WIDE workflow model



Publisher: ACM Press

Full text available: pdf(367.21 KB) Additional Information: full citation, references, citings, index terms

20 Development of a library for reusable workflow objects

Andreas Hofmann

April 1997 ACM SIGGROUP Bulletin, Volume 18 Issue 1

Publisher: ACM Press

Full text available: pdf(638.07 KB) Additional Information: full citation, abstract, index terms

In the field of office automation technical machines and methods are used to make the workflows in the office more efficient and simple. One new method sets the focus on the optimization of the whole working process rather than on the optimization of a single function: Business Process Modeling or Workflow Modeling. Such processes, that are influencing the financial result of the whole company can be called "profit critical jobs". To achieve the aim of process optimization some tasks have to be ...

Results 1 - 20 of 200 Result page: **1** <u>2</u> <u>3</u> <u>4</u> <u>5</u> <u>6</u> <u>7</u> <u>8</u> <u>9</u> <u>10</u> <u>next</u>

The ACM Portal is published by the Association for Computing Machinery. Copyright © 2007 ACM, Inc.

<u>Terms of Usage Privacy Policy Code of Ethics Contact Us</u>

Useful downloads: Adobe Acrobat Q QuickTime Windows Media Player Real Player